



MINERALS PROGRAM INSPECTION REPORT

PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: East Rigden Pit	MINE/PROSPECTING ID#: M-1979-097	MINERAL: Sand and gravel	COUNTY: Larimer
INSPECTION TYPE: Surety Release Inspection	INSPECTOR(S): Amy Eschberger	INSP. DATE: September 2, 2020	INSP. TIME: 10:00
OPERATOR: City of Fort Collins	OPERATOR REPRESENTATIVE: Mark Sears, Mike Hart, and Whitey Glasser	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Surety Release Requested	BOND CALCULATION TYPE: N/A	BOND AMOUNT: N/A	
DATE OF COMPLAINT: N/A	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: September 16, 2020	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>N</u>	(FW) FISH & WILDLIFE----- <u>Y</u>	(RV) REVEGETATION---- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>Y</u>	(RS) RECL PLAN/COMP-- <u>Y</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

This was a release inspection of the East Rigden Pit (Permit No. M-1979-097) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division) in response to an Acreage Reduction request (AR-2) filed with our office on August 13, 2020. The Division was accompanied by Mark Sears, Mike Hart, and Whitey Glasser during the inspection. The Division received one comment on AR-2 within the public comment period, from the Division of Water Resources (DWR; see enclosed).

The East Rigden Pit is located at the eastern edge of Fort Collins, CO in Larimer County, just to the west of Interstate 25. The site is situated directly south of the Cache La Poudre River. The main access to the site is from the west off Ziegler Road, through the batch plant area operated by Martin Marietta Materials. **Photos 1-14** taken during the inspection are included with this report.

This is a 112c operation permitted for 503 acres to mine sand and gravel. The affected lands are partially owned by the operator City of Fort Collins and partially owned by Cottonwood Land and Farms, LLC. The City took over the permit in 2014 to construct a clay-lined reservoir and a future regional park. According to the permit file, construction of the clay-lined reservoir was completed in September of 2014. The liner was approved by DWR on May 20, 2015. The approved post-mining land use for the site is a combination of developed water resources and wildlife habitat.

The permit area is divided by the Great Western Railway which runs northwest-southeast across the northern portion of the site. The western portion of the permit area located south of the railway is crossed by the Boxelder Ditch, which also runs northwest-southeast across the site. The site has not been mined in many years. However, a concrete batch plant remains active at the western edge of the permit area, processing material imported from off-site. Besides the batch plant area, all disturbed portions of the permit area have been in various stages of reclamation for some time. The southwestern portion of the permit area, located south of the batch plant and west of the Boxelder Ditch, was never disturbed by the operation. The approved reclamation plan for the site includes leaving the clay-lined reservoir and three unlined ponds (two north of the railway and one south of the railway), demolishing and removing all structures associated with the batch plant, and retopsoiling and revegetating all disturbed land, including the slopes of the ponds down to the anticipated high water level. The main access road and perimeter maintenance roads will remain after reclamation.

The area proposed for release in AR-2 consists of a 10.28 acre area located in the far northwestern portion of the permit area, north of the railway. This portion of the permit area is owned by Cottonwood Land and Farms, LLC. Reclamation of this area was completed in the early 2000's. The southern boundary of the area proposed for release follows the section line (between Section 21 to the north and Section 28 to the south), and crosses the southern portion of an unlined pond estimated to be approximately 8.5 acres in size. The southern boundary of the area proposed for release has been delineated with survey laths. The rest of the 10.28 acre area is delineated by property fencing. The shorelines of the pond are graded flatter than 3H:1V and are stable with established grasses, forbs, and a few volunteer cottonwood and willow trees. Wetland vegetation consisting primarily of cattails lines the southern shoreline of the pond (which is not included in the area proposed for release). The land surrounding the pond is well vegetated with grasses. Some weeds were present in these areas, particularly in areas west of the pond. However, the weeds did not appear to be hindering the growth of desired vegetation. The reclaimed land appears to be a valuable wildlife habitat resource. The pastureland north of the pond was never disturbed by the operation.

DWR's comments on AR-2 acknowledges that a portion of the unlined northwestern pond is located within the area proposed for release, and that their office has no concerns regarding the requested partial acreage release. According to their office, the 8.5 acres of exposed groundwater was previously documented as having been

exposed prior to January 1, 1981, and therefore, does not require replacement of evaporative depletions. In its March 11, 2019 inspection report, the Division had estimated the surface area of the pond to comprise 8.88 acres, which is 0.38 acre more than the pre-1981 pond size of 8.5 acres. However, DWR determined the additional acreage estimated by the Division could be attributed to mapping accuracy discrepancies and accepted the operator's proposal to maintain the pond at its current size. Because the area proposed for release in AR-2 has been reclaimed in accordance with the approved reclamation plan and the amount of exposed groundwater is compliant with DWR, the Division determined the area could be released from the permit. Accordingly, AR-2 was approved on September 9, 2020, leaving a total permit area of 492.72 acres (see enclosed Google Earth image of site and revised Reclamation Plan Map submitted with AR-2 showing new permit boundary).

It should be noted, the current Substitute Water Supply Plan (SWSP) approved by DWR for the site for the period of July 1, 2020 through June 30, 2021, states the operator has not identified an approach to mitigate the long-term depletions from the additional post-1980 groundwater exposed in the north and west ponds, which totals 18.67 acres. These ponds are located on lands owned by Cottonwood Land and Farms, LLC. The operator is continuing negotiations with the landowner to acquire the property and incorporate the ponds into their existing augmentation plan. In the event that such negotiations are unsuccessful, DWR will not support the release of the land containing any post-1980 exposed groundwater from the mine permit unless depletions are first included in a decreed plan for augmentation or otherwise mitigated. This may require the operator to backfill the ponds to their pre-1981 surface area in order to fulfill their reclamation obligations. DWR will not approve any future SWSPs without proof of diligence towards a plan for addressing the post-1980 exposed groundwater at the site.

The problem cited in the Division's March 11, 2019 inspection report regarding the amount of exposed groundwater at the site was considered abated after the operator provided evidence of submitting a SWSP renewal request to DWR to replace all out-of-priority depletions with their augmentation water sources. However, this issue will not be fully resolved until the operator has either obtained the water rights required by DWR, or backfilled the northern and western ponds to their pre-1981 surface areas. Therefore, the operator must continue to inform the Division of any progress achieved on this matter, especially prior to the expiration of the current SWSP.

During its last inspection of the site on May 12, 2020 (for AR-1), the Division had discussions with Mr. Hart and Mr. Glasser regarding future plans for the site. At that time, the batch plants operations were expected to cease in July of this year and demolition of the structures to begin. At the time of this inspection, the batch plant was still in operation. However, phase 1 of demolition had begun, including removal of the scale and scale house. Mr. Hart indicated current plans are for batch plant operations to cease in February of 2021. However, this date may be extended depending on negotiations between the batch plant operator and landowner.

During the inspection, Mr. Sears indicated plans to submit an additional Acreage Reduction request in the near future to release all lands owned by the City of Fort Collins from the permit, including the lined reservoir and land located directly northwest of the reservoir which will be a future park site. The northwestern shoreline of the reservoir was being irrigated during the inspection. It should be noted, at least one portion of the City-owned land to the northwest of the reservoir, near the northern access road, appeared to have sparse vegetative cover consisting primarily of weeds. Per Rule 3.1.10(1), those areas where revegetation is part of the reclamation plan, land shall be revegetated in such a way as to establish a diverse, effective, and long-lasting vegetative cover that is capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer, and is at least equal in extent of cover to the natural vegetation of the surrounding area. Therefore, any areas proposed for release that are to be revegetated per the approved reclamation plan must meet the requirements of this rule.

The Division would also like to remind the operator the approved revegetation plan for the reservoir calls for planting trees and shrubs adjacent to the reservoir, including Cottonwoods, Ponderosa Pines, Colorado Pinyons, Rocky Mountain Junipers, Hackberry, and Rabbitbrush. Therefore, prior to requesting release of this area, the operator will need to either plant the trees and shrubs in accordance with the approved revegetation plan, or propose a revised revegetation plan through a Technical Revision.

This concludes the report.

Any questions or comments regarding this inspection report should be forwarded to Amy Eschberger at the Colorado Division of Reclamation, Mining and Safety, 1313 Sherman Street, Room 215, Denver, CO 80203, via telephone at 303-866-3567, ext. 8129, or via email at amy.eschberger@state.co.us.

PHOTOGRAPHS



Photo 1. View looking west (toward pond) showing survey laths marking southern boundary of area proposed for release.



Photo 2. View looking north (across area east of pond) showing survey lath marking southern boundary of area proposed for release.



Photo 3. View looking west showing metal t-post marking southeastern corner of area proposed for release.



Photo 4. View looking north across eastern shoreline of pond in area proposed for release, stable with slopes flatter than 3H:1V and good vegetative cover.



Photo 5. View looking southwest across eastern shoreline of pond in area proposed for release, stable with slopes flatter than 3H:1V and good vegetative cover.



Photo 6. View looking north across disturbed area east of pond reclaimed with good grass cover.



Photo 7. View looking west across northern shoreline of pond in area proposed for release, stable with slopes flatter than 3H:1V and good vegetative cover.



Photo 8. View looking west across disturbed area immediately north of pond reclaimed with good grass cover.



Photo 9. View looking north across pasture north of pond which was undisturbed by the operation.



Photo 10. View looking southeast across western shoreline of pond in area proposed for release, stable with slopes flatter than 3H:1V and good vegetative cover.



Photo 11. View looking northeast across northwestern shoreline of pond in area proposed for release, stable with slopes flatter than 3H:1V and good vegetative cover.



Photo 12. View looking north across western shoreline of pond in area proposed for release, stable with slopes flatter than 3H:1V and good vegetative cover.



Photo 13. View looking southeast across southwestern shoreline of pond in area proposed for release, stable with slopes flatter than 3H:1V and good vegetative cover.



Photo 14. View looking west across southern shoreline of pond in area not proposed for release, stable with slopes flatter than 3H:1V and good vegetative cover.

Inspection Contact Address

Mark Sears
City of Fort Collins
P.O. Box 580
Fort Collins, CO 80522

Encls: DWR comment on AR-2, received on August 24, 2020
Google Earth image of site showing permit area after AR-2 approval
Revised reclamation plan map submitted with AR-2

CC: Mike Hart, Hart Environmental
Whitey Glasser
Bill McDowell, Cottonwood Land and Farms, LLC
Michael Cunningham, DRMS



Response to Reclamation Permit Partial Acreage Release Request Consideration

DATE: August 24, 2020
TO: Amy Eschberger, Environmental Protection Specialist
FROM: Javier Vargas-Johnson
RE: East Rigden Pit, File No. M-1979-097 - AR02
Applicant/Operator: City of Fort Collins, (970) 416-2096
Section 21, Twp 7 North, Rng 68 West, 6th P.M., Larimer County

COMMENTS: The applicant has requested a partial acreage release for 10.28 acres located along the northwest boundary of the East Rigden Pit. The land area to be released consists of a portion of the northwest pond and the surrounding area. Approximately 503 acres will remain within the mining permit boundary.

The unlined northwest pond has a total of 8.5 acres of open water surface. Pursuant to section 37-90-137(11)(b), C.R.S., and 2009CW49, a gravel pit operator or property owner does not need to replace depletions that occur due to evaporation from groundwater exposed prior to January 1, 1981 (“pre-81”) as a result of open mining and gravel. The 8.5 acres of open water surface have been previously documented by our office as having been exposed prior to January 1, 1981. The Division of Mining Reclamation and Safety (“DRMS”) conducted a field inspection in January 2019 where they found that the acreage of exposed groundwater of the ponds at site had expanded beyond the approved pre-81 boundaries. DRMS estimated that the acreage of the northwest pond had increased by approximately 0.38 acres, however our office conducted an analysis of currently exposed areas shown on aerial imagery and agreed with the applicant that the 0.38 acres could be attributed to mapping accuracy discrepancies and accepted the applicant’s proposal to maintain the acreage of the northwest pond as the 8.5 acres previously approved as pre-81.

Based on the above, this office has no concerns regarding the requested partial acreage release. The Division of Reclamation, Mining and Safety and/or the applicant may contact the State Engineer’s Office with any questions.



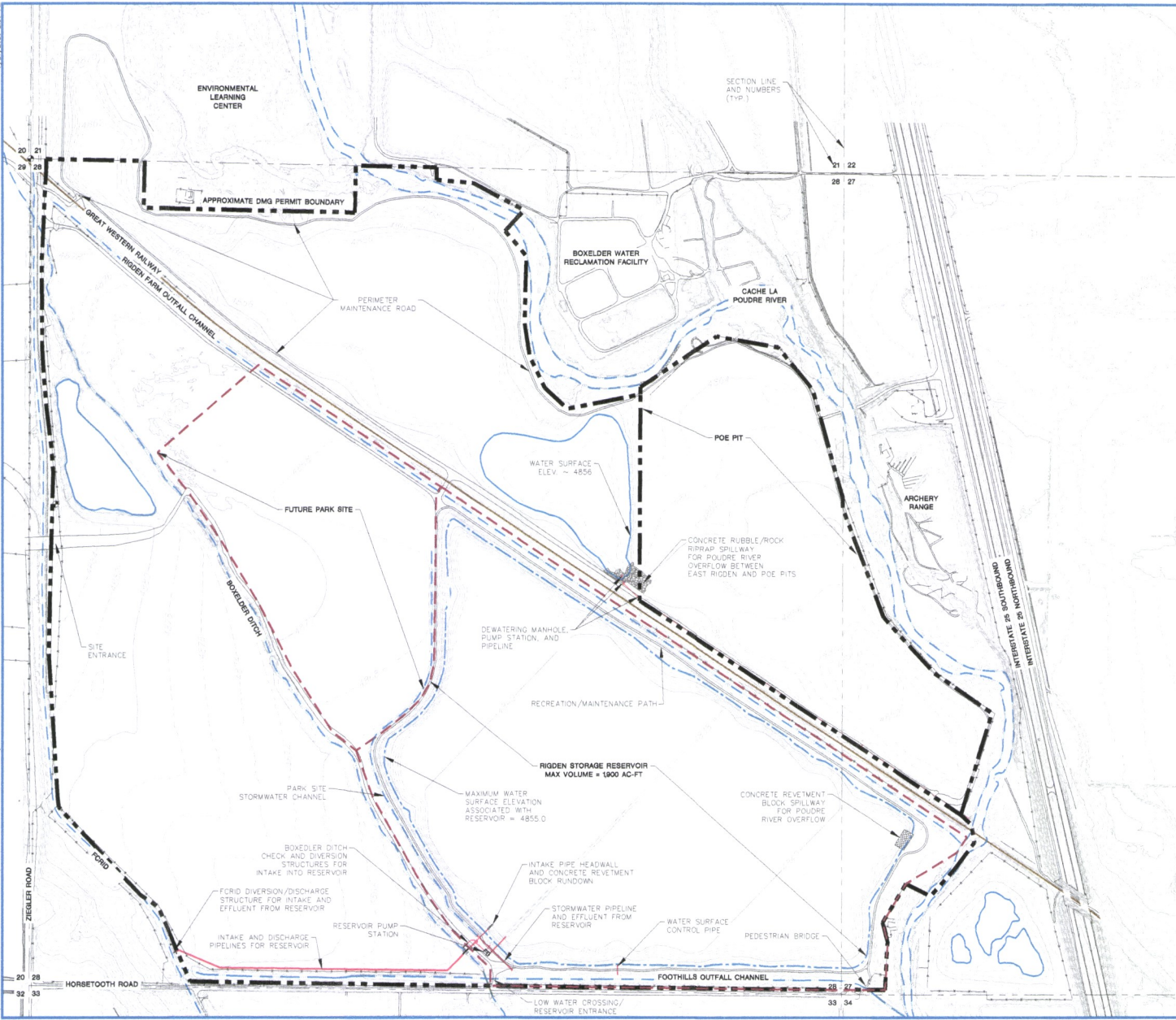
M-1979-097 / East Rigden Pit / City of Fort Collins (112c)

Red Outline = 492.72 acres = Permit Area after AR-02 Approval (location approximated based on approved maps)
Yellow Outline = 10.28 acres = Area proposed for release in AR-02
(Image data from 7/17/2019)



7/27/2020 2:29 PM

PROJECT: NORTH RIDGEN PIT EVALUATION TECHNICAL REPORT TO THE CITY OF FORT COLLINS MINING AMENDMENT FIGURE REVISED 7-31-2020.DWG



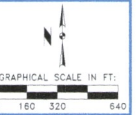
LEGEND:

- MINING PERMIT BOUNDARY
- CITY OWNED PARCELS WITHIN EAST RIDGEN PIT MINING BOUNDARY
- FINISHED 2-FOOT CONTOURS
- FINISHED 10-FOOT CONTOURS
- RAILROAD
- ROADS
- FENCE
- SECTION LINES
- RIVER/STORMWATER/IRRIGATION CHANNEL
- OPEN WATER
- UNDERGROUND PIPELINES



RECLAMATION MAP
 WITH REVISED PERMIT
 BOUNDARY
 JULY 31, 2020

CITY OF FORT COLLINS
 EAST RIDGEN PIT
 MINING AMENDMENT
 MINING PERMIT #:
 M-1979-097



DRAWN BY:	BAS
DESIGNED BY:	BAS
CHECKED BY:	BAS
PROJECT NUMBER:	COCLF12
DATE:	07/31/2020
FIGURE:	F-2
PAGE #:	F-3